

# CHALLENGES IN THE DIAGNOSIS AND SCREENING FOR TOXOPLASMA GONDII DURING PREGNANCY: RESULTS FROM A REFERENCE CENTER IN BRAZIL

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## Problem statement

In Brazil there is high prevalence of toxoplasmosis. The serological screening in the first trimester of pregnancy is recommended by the Brazilian Ministry of Health. Prenatal diagnosis of congenital toxoplasmosis (CT) influences follow up and therapeutic management in pregnant women. As maternal infection is usually asymptomatic, serological tests for toxoplasma-specific immunoglobulin M (IgM) and IgG are used to identify women infected during pregnancy, together with other serological results such as IgG avidity. No consensus exists about the most effective screening strategy. This study aimed to discuss the variability and persistence of positive toxoplasma-IgM results from the women followed during the pregnancy and after birth at a reference center in Rio Grande do Norte state, Brazil.

## Methods

Sixty-four women were included in the cohort between 2016 and 2018. They were referred to the center if they had tested positive for toxoplasma-specific immunoglobulin M (IgM) during the prenatal consultations. Only the patients with 2 or more serological results for IgM were included in the study. All the tests were performed by the state reference laboratory with an immunosorbent agglutination assay. We compared IgM results over time to see if they had alteration along the months and even years.

## Results

The median age of women followed was 29 years old. The Spearman correlation showed that the first IgM toxoplasma test during pregnancy did not vary compared to IgM dosed after 4 and 8 weeks. Furthermore, IgM levels during pregnancy did not change even after delivery, with a median of 246 days between IgM dosages.

## Conclusion

Variability in the duration of the IgM response limit their use for predicting the timing of infection (e.g. during the pregnancy or before), and the decision to refer for additional follow up and treatment should not be based on a single IgM- and IgG-positive test, while we have seen a lot of positive low level IgM results and persistence of those IgM low level even after years. Efforts to improve the current diagnostic strategies to reduce unnecessary follow up and treatment is necessary.

Median age, median of first IgM during pregnancy and median of IgM after delivery of women followed

Median Age	Median of first IgM during pregnancy	Median of IgM after delivery
29 years	1,54 U/ml	1,87 U/ml

## References

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